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ABSTRACT

Although marital dissatisfaction and social contact factors have been related to depression, the impact of these variables on a heterogeneous population is unclear. To determine risk for depression resulting from the absence of social support variables, 267 married adults (131 males, 136 females), with a mean age of 47 years, completed the Marital Adjustment Test, the Beck Depression Inventory, and the Social Isolation Scale. An analysis of the results showed that the quality of the marital relationship and frequency or amount of positive social contact with adults other than the spouse were significantly related to depressive symptomatology for both men and women. These two variables accounted for 16% of the variance in depression. Analyses of risk for depression showed that individuals having the least support were 13 times more likely to be depressed than individuals with the highest levels of social support. These findings suggest that treatment for depression and marital distress should attempt to build the individual's social network rather than fostering social isolation through individual psychotherapy. (Author/BL)

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Risk for Depression as a Function of Social Support

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CG 017512

Running Head: Risk for Depression

PAPER PRESENTED AT THE EASTERN PSYCHOLOGICAL ASSOCIATION, PHILIDELPHIA, APRIL 1983.

Abstract

The relationship between depression and two social support variables was assessed. Based on a sample of 131 married men and 136 married women, the results indicated that the quality of the marital relationship and the frequency of positive social contact with adults other than the spouse were significantly related to depressive symptomatology for both men and women. These two variables accounted for 16 percent of the variance in depression. Further, analyses of risk for depression showed that individuals having the least support were 13 times more likely to be depressed than individuals with the highest levels of social support. These results strongly suggest that social isolation and marital dissatisfaction are related to depression among married adults.

Risk for Depression as a Function of Social Support

There are a number of recent articles highlighting the relationship between social support and the prevention of psychological disorders (Eaton, 1978; Gore, 1978; Lin, Simeone, Envel, & Kuo, 1979; Wilcox, 1981). Further, there is increasing recognition of the importance of social support networks for mental health (Kelley, Snowden, & Munoz, 1977). In turn, substantial progress has been made in developing measures of social support (Barrera, Sandler, & Ramsay, 1981) and in understanding the variables governing individuals' satisfaction with their own social networks (Hirsch, 1979). However, the importance of the quantity and quality of contacts with social network members remains understudied. This study examined the relationship between depression and two social support variables: (1) the quality of the marital relationship and (2) frequency of social contact with network members other than the spouse. These two aspects of social support were chosen on the basis of the available evidence suggesting their probable relationship to risk for depression and the relative ease with which these network variables could be assessed.

The relationship between martial dissatisfaction and depression has been consistently documented (Coleman & Miller, 1975; Renne, 1970; Weiss & Aved, 1978). Similarly, there is a greater likelihood for depressed patients to have disturbed marriages than for couples sampled from the community to have distressed marriages (Bothwell

& Weissman, 1977; Roy, 1978; Weissman, Paykel, Siegel, & Klerman, 1971). However, these studies typically have overlooked other social support variables, consequently, never assessing the additive or interactive effects of multiple sources of support. When other variables have been assessed research in this area usually has contrasted depressed and nondepressed samples, failing to yield an estimate of the strength of the relationship in the general population. An alternative procedure, used in the study reported herein, is to first assess the strength of the relationship in a general population and then to divide subjects from a general population into high and low marital distress groups and, then, to evaluate the rate of depression for each of these groups. Such a breakdown becomes especially important when one is interested in groups who are not receiving mental health services but who are interesting because of their low scores on scales designed to assess clinical symptomatology.

Social contact has been related to depressive symptomatology and significant correlations between these two variables have been found consistently (Blumenthal & Dielman, 1975; Miller & Ingham, 1976; Pearlin & Johnson, 1977). However, social support or contact usually has been operationalized in a way that offers few, or no, implications for designing interventions. For example, Blumenthal and Dielman (1975) operationalized social support as their subjects' responses on two questions assessing <u>feelings</u> of closeness to

friends and two questions assessing overall satisfaction with friends and friendships. These questions require respondents to make complex and global judgments. Such judgments are more subject to rater bias or distortion than concrete and specific ratings (Kent, O'Leary, Diament, & Dietz, 1974). Again, rates of depression within high and low social contact groups have not been reported, providing little information on the potential impact of interventions aimed at decreasing depression by increasing social contact.

While the evidence suggests that both marital satisfaction and social contact are related to depression it remains unclear what impact each of these variables has in a population not seeking out mental health services. The goal of this study was to determine rates of depression (i.e., risk) resulting as a function of the absence of social support variables. It was hypothesized that both level of marital satisfaction and level of social contact would account for variance in level of depression and would predict risk for depression.

Method

Subjects

Two hundred and sixty-seven married adults were recruited from a larger group of subjects who had participated in previous research on the stressful effects of life events and indicated willingness to participate in further research. The respondents' ages ranged from 23 to 86 years, with a mean of 47. Subjects had been married to their current partner for an average of 19 years. The modal respondent had completed high school; over half of the sample, however, had some education beyond high school. Respondents had an average of 1.5 children and 10 percent of the sample had been previously married.

Instruments

Marital Adjustment Test (MAT). The short form of the MAT (Locke & Wallace, 1959) is a brief, self-report questionnaire which assesses global marital satisfaction. Scores of less than 100 indicate marital distress. The MAT has been shown to have good test-retest reliability (Kimmel & Van der Veen, 1974) and to be a valid indicator or marital satisfaction (Murstein & Beck, 1972).

Beck Depression Inventory (BDI). The short form of the BDI (Beck, 1972) is a 13-item questionnaire which assesses the severity of cognitive, behavioral, and physiological depressive symptomatology. Scores on this short form range from 9 (no depression) to 39 (severely depressed). Originally an interviewer administered scale, the BDI

has been validated as a self-administered instrument (Beck, 1972). The short form of the BDI has been shown to correlate highly (r= .93) with the original long form and to have a test-retest reliability of .83 (Reynolds & Gould, 1981). In addition, the BDI short form has been validated against psychiatric ratings of depression (Bumberry, Oliver, & McClure, 1975). However, there is not normative data for a married community (i.e., nonclinical, nonstudent population) sample's responses on the BDI. For purposes of this investigation, the depressed group was defined as the highest scoring 15 percent of subjects. This cutoff must be interpreted, with caution, as an estimate of severity of depressive symptoms.

Social Isolation Scale (SIS). Constructed for the purpose of this study, the SIS consists of five questions assessing the frequency of contact with others. The responses for each question are weighted in value from 1 (never) to 6 (almost always). An individual's social isolation score consists of the sum of the weighted values of all five responses. Total scores range from 6 (extreme social isolation) to 30 (no social isolation). Table 1 lists the

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Insert Table 1 about here

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items of the SIS and their correlations with the total scale score. The items of this scale did not reflect frequency of contact with the spouse. In addition, the items were expected to tap a single

domain (i.e., construct) and indicate an individual's current rate of satisfying interactions with adults other than the spouse. The item total correlations, ranging from .53 to .64, and the low and nonsignificant correlation between the SIS and the MAT (r= .10) suggest that these criteria were adequately met.

Procedure

Five hundred married adults were contacted by mail. One week after the packet of questionnaires were sent, a follow-up postcard was sent to those who had not returned the completed materials. A second reminder was sent a week later. Twenty-four individuals were not included in the study either because they could not be contacted or because they were no longer married. One hundred thirty-one men and 136 women returned their completed questionnaires, thus yielding a 56 percent response rate.

Results

Marital Adjustment Test

Scores of the MAT ranged from 35 (severe marital distress) to 157 (high marital satisfaction). The mean MAT score was 115.88 (SD=24), while the median score was 120. There was no significant difference between level of marital satisfaction for men and women.

Beck Depression Inventory

Scores on the short form of the BDI ranged from 0 to 17. The mean BDI score was 2.36 (SD=2.8). Based on previous work (Dohrenwend & Dohrenwend, 1969, 1976; and Srole, 1975), the highest

scoring 15 percent (BDI score equal to or greater than 5) of the respondents were classified as mildly depressed. Replicating Hammen and Padesky's (1977) finding, no significant difference between mean BDI scores for men and women was found.

Social Isolation Scale

Scores on the SIS ranged from 7, indicating infrequent and unenjoyable contact with network members other than the spouse, to 30, indicating frequent and enjoyable contacts. The mean and median score for the entire sample was 22.00 (SD=4.5). The mean score for the men was 21.15 (SD=4.8), while the mean score for the women was 23.01 (SD=4.0). The difference between these two means was significant, t (263)=3.49, $p < .05$, suggesting that men are more socially isolated than women.

Correlational Analyses

The Pearson product-moment correlation between marital satisfaction and severity of depression, for the entire sample, was -.26, t (264)=4.37, $p < .001$, indicating that greater severity of depressive symptomatology is significantly associated with low levels of marital satisfaction. The correlations between marital satisfaction and depression were also significant for the male and female subsamples: -.33, t (129)=3.31, $p < .001$, and -.16, t (133)=1.87, $p < .05$ respectively. The association between marital satisfaction and depression was not significantly stronger for men than for women. Since no directional hypothesis had been formulated about the relationship

between marital distress and social isolation, these correlations were subjected to two-tailed t-tests for significance. Marital satisfaction was positively related to social contact for men, indicating that frequent social contact (or no social isolation) was associated with higher levels of satisfaction. The correlation coefficients were: .10, t (262)=1.63, $p > .10$, for the entire sample; .18, t (128)=2.07, $p < .05$, for the men; and -.02, t (132)= .22, $p > .10$, for the women. Although the correlation for the women was not significant, it was not significantly weaker than the correlation for men. Social isolation was significantly related to depression severity for the entire sample (r=-.34, t (263)=5.86, $p < .001$); for men (r=-.35, t (128)=4.22, $p < .001$); and for women (r=-.33, t (133)=4.03, $p < .001$). Thus, low levels of marital satisfaction and infrequent social contact with other adults are highly significant factors associated with depression for both men and women.

Table 2 provides the results of a multiple regression

Insert Table 2 about here

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analysis, using marital satisfaction and social isolation as predictors of depression. Marital satisfaction and social isolation combined to produce a multiple R of .40, F (2,258)=24.37, $p < .001$, thus, jointly accounting for 16 percent of the variance in depression

scores. The multiple correlations for the male and female subsample were .44, F (2,126)=15.50, $p < .001$, and .37, F (2,129)=10.05, $p < .001$, respectively. For the entire sample, the beta weights for marital satisfaction and social isolation were .22, F (2,258)= 15.14, $p < .001$, and .31, F (2,258)=29.00, $p < .001$, respectively.

Analysis of Risk

In order to assess the impact of marital satisfaction on rates of, or risk for, depression, the entire sample was divided into categories of high and low marital satisfaction. Participants whose MAT scores fell at or below the median were included in the low marital satisfaction group while those whose MAT scores were above the median were included in the high marital satisfaction group. Depression was considered present for any individual whose BDI score equalled or was greater than 5, i.e., the highest scoring 15 percent of the sample. Twenty-one percent of maritally distressed respondents scored depressed while 9 percent of maritally satisfied respondents were classified as depressed. This difference was significant, $X^2(1)=5.72$, $p < .05$. A similar pattern emerged when the impact of social isolation on depression was assessed. Respondents who scored at or below the median on the SIS were included in the socially isolated group while those scoring above the median were included in the nonisolated group. Once again, depression was considered present for any individual whose score fell in the top 15 percent of the sample. Of all socially isolated respondents, 23

percent were at least mildly depressed while only 7 percent of non-isolated respondents were depressed. This difference was also significant, $X^2(1)=11.27$, $p<.001$.

In order to assess the joint impact of marital satisfaction and social isolation on risk for depression, the entire sample was divided into three categories: no sources of support, one source of support, and two sources of support. Respondents whose scores on both the MAT and SIS fell below the median were included in the no sources of support group; those whose MAT or SIS scores fell below the median were included in the one source of support group; and those whose scores on both the MAT and SIS fell above the median were included in the two sources of support group. Again, depression was considered present for any individual whose BDI score equalled or was greater than 5.

Figure 1 illustrates the resulting relationship between

Insert Figure 1 about here

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social support (i.e., marital satisfaction and frequency of social contact) and depression. Thirty-one percent of all respondents with no sources of support scored depressed. This figure drops substantially to 12 percent when one source of support is available and down to 5 percent when both sources of support are present. This six-fold increase in risk for depression, from the most to the

least supported group of respondents, was significant, $X^2(2)=20.28$, $p<.001$. A similar pattern of results emerged when the same analysis was performed for the male and female subsamples. For men, the percentages of depressed respondents were 35, 11.6, and 3.1 for the low, medium, and high support groups respectively. For women, 25.9, 12.9, and 6.5 percent of the respondents in the low, medium, and high support groups respectively were depressed.

Rates of depression were calculated for extremely isolated and maritally distressed individuals to ascertain whether the presence of severe social isolation or marital distress further increases risk for depression. For the purposes of this analysis, a respondent was considered socially isolated only if his/her SIS score was less than or equal to 18 (i.e., the bottom 20 percent of the sample) and maritally distressed only if his/her MAT score was less than or equal to 99 (the cutoff score commonly taken to indicate the presence of marital distress). Among respondents who were neither severely socially isolated nor severely maritally distressed, 10.11 percent scored depressed. Of those respondents who had one source of, at least, minimal support (i.e., SIS > 18 or MAT > 99), 17.33 percent were depressed. Of those respondents who had no sources of support (i.e., SIS ≤ 18 and MAT ≤ 99) 66.66 percent were depressed. The differences between rates of depression were significant, $X^2(2)=29.22$, $p<.001$. Thus, the results firmly support the notion that individuals deprived of social contact or support are more likely to experience depression than individuals not so deprived.

Discussion

The results of this study replicate the findings of previous work, supporting the hypothesis that the quality of the marital relationship and frequency or amount of social contact are related to depression. Indeed, 16 percent of the variance in depression was accounted for by marital distress and social isolation jointly. Further, the beta weights for marital satisfaction and social isolation were significant, thus suggesting that these variables could augment the prediction and control of depression. However, as mentioned earlier, an alternative method was proposed for estimating risk for depression as a function of marital distress and social isolation.

When rates of depression as a function of low versus high marital satisfaction were calculated, risk for depression for the low marital satisfaction group was twice the risk for the high satisfaction group. Likewise, risk for depression among the socially isolated respondents was more than double the risk for the less isolated group. Respondents who were maritally depressed and socially isolated were <u>six</u> times more likely to be depressed than respondents who were maritally satisfied and had frequent and pleasant social contact with other adults. Most striking of all was the finding that <u>two-thirds</u> of the most socially isolated and maritally distressed individuals were depressed, while only one-twentieth of the most socially supported individuals were depressed,

yielding a thirteen-fold increase in rate of depression. These results strongly suggest that marital distress and social isolation are relevant factors in the etiology and/or maintenance of depression. However, given the nature of the research to date, i.e., cross-sectional research, the converse relationship, that depression causes or maintains social isolations has not been ruled out.

Longitudinal research and/or experimental designs involving some form of "social system therapy" (Pattison, 1977) are useful methods of illuminating the nature of the complex interdependencies of social isolation, depression and marital discord. In addition, community based interventions aimed at establishing social networks, improving marital relationships, or doing both simultaneously could provide an illuminating opportunity to assess the impact of changing social support variables on rate of depression.

Currently, the two major treatment modalities for depression are individual psychotherapy and pharmacotherapy. Both of these treatments have empirical support for their effectiveness (Hollon & Beck, 1978; Morris & Beck, 1974) and are being intensively studied in the largest comparative psychotherapy outcome study conducted on depression to date (Marshall, 1980). However, the research on marital distress indicates that individual therapy is not effective in alleviating marital distress (Gurman & Kniskern, 1978). Further, interpersonal difficulties such as marital distress and social isolation do not improve as a result of drug therapy

(Friedman, 1975). Indeed, there is evidence that these difficulties may persist for as long as four years beyond the end of individual psychotherapy or drug therapy (Bothwell & Weissmann, 1977). Thus, the predominant treatment modalities are not well equipped to alleviate difficulties occurring in social networks. While not detracting from the importance and effectiveness of current treatment modalities, the research reported herein suggests that the social network variables of marital distress and social isolation should be dealt with in a systematic fashion in the prevention and treatment of depression.

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Table 1

Item-Total Correlations for the Social Isolation Scale

Item	Correlation[a]
Talk to Adult Relatives	.53
Enjoy Talking to Adult Relatives	.63
Talk to Friends	.66
Enjoy Talking to Friends	.60
One Person, Talk to and Enjoy Regularly	.64

[a]All correlation coefficients were significant at the .001 level.

Table 2

Multiple and Simple Correlations Between Depression and Marital Satisfaction and Social Isolation

	Entire Sample	Husbands	Wives
Multiple R	.40**	.44**	.37**
R^2	.16**	.20**	.13**
Adjusted R^2	.15**	.18**	.12**
Simple $r_{BDI/MAT}$	-.26**	-.33**	-.16*
Simple $r_{BDI/SIS}$	-.34**	-.35**	-.33**

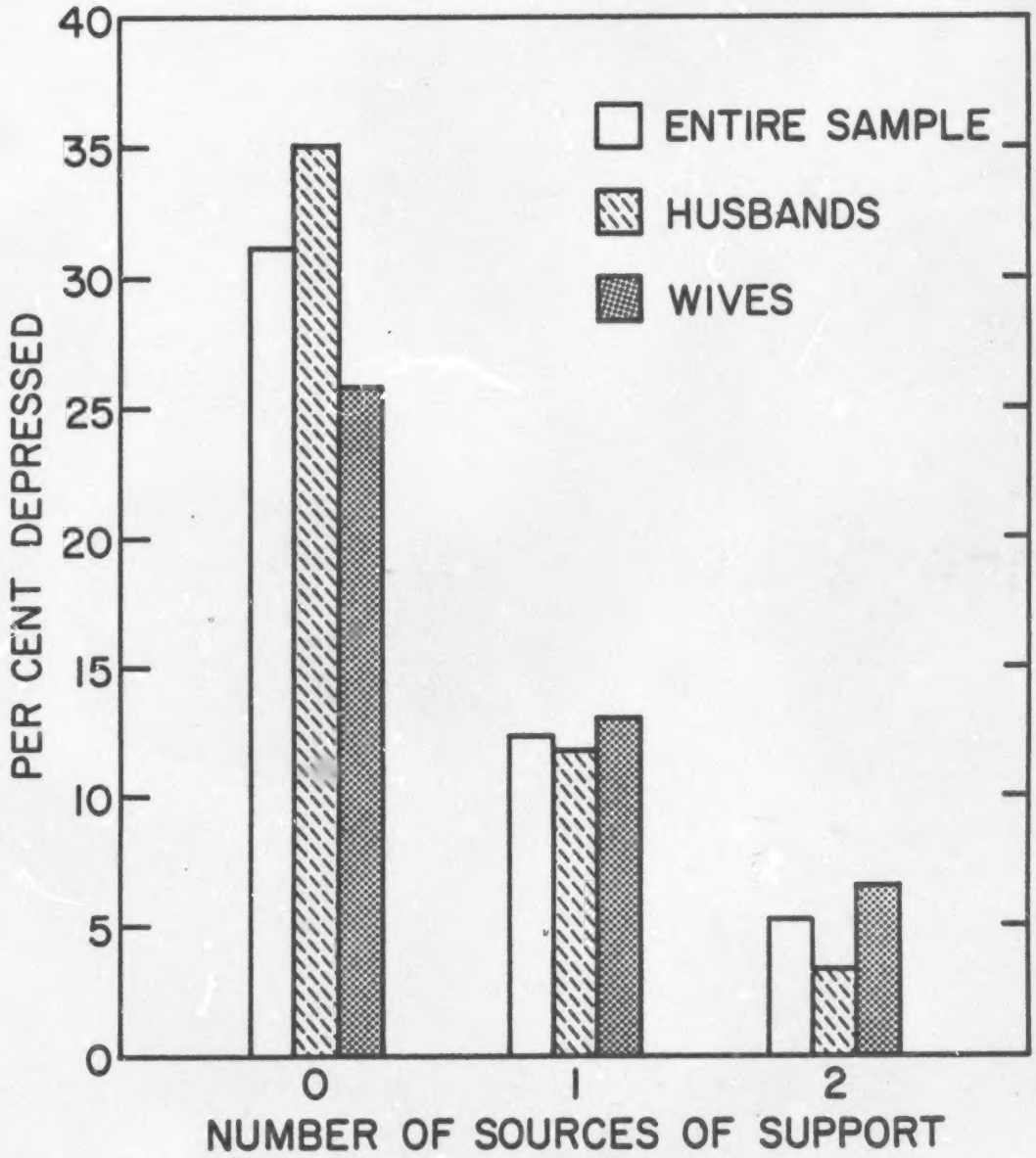
*$p < .05$

**$p < .001$

Simple correlations were subjected to one-tailed t-tests for significance.

Figure Captions

Figure 1. Rates of depression as a function of level of social support.


40
35
30
25
20
15
10
5
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PER CENT DEPRESSED
ENTIRE SAMPLE
HUSBANDS
WIVES
0
1
2
NUMBER OF SOURCES OF SUPPORT